

Agency costs of debt and Monitoring

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The purpose of this paper is to investigate how the debt structure of an organisation affects its demand and preference for monitoring costs in Malaysian business environment. Data is collected using primary and secondary sources. Multiple regression analysis is used. The findings indicate that debt structure have negative significant relationship with total monitoring costs. However the debt structure is not significant when the cost of directorship and auditing are compared. But when internal auditing and external auditing costs are compared, the result indicates that companies with high debt structure have significantly more external auditing costs. This result is consistent with prior studies and supports the notion that highly geared companies demand more external audit as the banks need the independent third party to verify the figures in the financial statements prepared by the management.

Field of Research: Corporate governance and accountability

1. Introduction

Agency costs arise in a firm when managers pursue their own interests at the expense of the shareholders. Several mechanisms are suggested in the literature to reduce these costs. Among others, it is claimed that capital structure through the use of debt financing or leverage can help to discipline the managers and reduce the agency costs (Agrawal and Knoeber, 1996; Fleming et al., 2005; Jensen, 1983; Harris and Raviv, 1991; Ugurlu, 2000; Abor, 2008). In addition, Agrawal and Knoeber (1996) and Ang et al. (2000) claim that debt financing provide an alternative or complementary monitoring mechanism to managerial equity ownership and family ownership for reducing the agency cost of an organisation. This is due to the fact that external financing can induce monitoring by lenders.

Previous studies examine various dimension of debt financing in relation to other factors, such as debts and compensation (Bryan et al., 2005), information role of debt (Haris and Raviv, 1990), ownership structure and debt (Su, 2010; Berger et al., 1997;

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Fleming et al., 2005) and debt and performance (Abor, 2007) . There are also studies examining the relationship of debt financing and audit fees only (Tauringana and Clarke, 2000; Chow, 1982), but none of the studies investigate how debt financing influence the components of the monitoring /agency costs of an organization, and the preference between the components.

This study attempts to examine how the debt financing of an organisation affects the component of its monitoring/agency costs in Malaysian organizations. This study uses the direct measure of agency costs, which are the cost of monitoring the companies as recommended by Malaysian Code of Corporate Governance (FCCG, 2001), namely the cost of directorship, internal audit and external audit. Specifically, this study focuses on how the debt financing affect the demand and preferences of these three monitoring mechanisms as the proxy for agency costs in Malaysian organizations.

This paper proceeds as follows: Section 2 gives a review of the relevant literature, and Section 3 provides a description of the methodology used for this study. Section 4 presents and discusses the results of the empirical analysis, and finally the last section concludes the study.

2. Literature Review and Hypotheses Development

Most organizations use some debt in their capital structure. Fosberg (2004) claims that the primary reason is due to the fact that tax deductibility of interest lower the cost of debt financing and makes debt capital the cheapest type of outside financing available to most organizations. However, the major disadvantage of debt financing is that it increases the risk that the organisation will go bankrupt if it cannot service its debt.

It is also argued that capital structure choice may be an instrumental monitoring variable as it can be a bonding device triggering corporate control actions (Renneboog, 2000). Agrawal and Knoeber (1996) and Ang et al. (2000) claim that debt financing provide an alternative or complementary monitoring mechanism to managerial equity ownership and family ownership for reducing the agency cost of an organisation. This is due to the fact that external financing can induce monitoring by lenders. Financing projects internally avoids such monitoring. Besides that, debt may reduce agency costs by reducing cash flows available for expropriation and investments in negative net present value projects (Harris and Raviv, 1991; Jensen, 1986). Furthermore, Fleming et al. (2005) claim that compared to issuing of new equity, the issue of debt also will not dilute the managers' equity holdings as a proportion of total equity, but further enhance the alignment of interests. Debt is also said to serve as a disciplining device because default allows creditors the option to force the organisation into liquidation (Harris and Raviv, 1990). Ang et al. (2000) claim that by incurring monitoring costs to safeguard the loan, banks lead organizations to operate more efficiently by better utilising assets and moderating perquisite consumptions in order to improve the organisation's reported financial performance to the bank. As the leverage increases, so does the risk of default by the organisation, hence the incentive for the lenders to monitor the organisation. They find that agency costs are lower with greater monitoring by the banks.

Abor (2008) claims that the relationship between the managers of the firm and the debt holders can be characterised as principal-agent relationship, where the firm's management is the agent and both the debt holders and the shareholders are the principals. Direct monitoring by debt covenants and capital market participants and knowing that they will be subjected to continual scrutiny by these external parties discipline managers to avoid expropriation of shareholders wealth and provide incentives for managers to avoid shirking and excessive perquisite consumption (Bryan et al., 2005).

Debt is also said to be able to generate information that can be used by investors to monitor and evaluate major operating decisions of the organisation in two ways. Firstly, the mere ability of the organisation to make its contractual payments to debt-holders provides information. Secondly, in the event that the organisation fails to make the payments, their ways to resolve the matter either through informal negotiation or formal bankruptcy proceeding will disseminate considerable information to the investors (Harris and Raviv, 1990). They further stress that debt-holders can use their legal rights to force management to provide information and to implement the resulting efficient liquidation decision.

Tauringana and Clarke (2000) argue that highly geared companies have incentive to be audited since lenders would demand audited financial statement to approve their loans. They further argue that as for major creditors, since they have no legal right to access the company's books and records, the audited financial statements are the best assurance they have of the company's status; consequently they are more likely to insist on the financial statements to be audited.

An organisation with high debt financing would place heavy demand on organizations for detailed financial disclosure to enable the debt holders to monitor the adherence of the debt covenants. Creditors will scrutinise the organizations to ensure that the covenants are not violated. The debt holders will depend on the true and fairness of the financial statements as certified by the auditors to ensure the validity of the value of the assets in the determination of payoffs to claimholders. An organisation with debt contracts is also said to place high importance and reliance on the accounting numbers, and especially so if the greater the number of different accounting measures in the organisation debt covenants (Chow, 1982). This notion is supported by Jensen and Meckling (1976) who argue that the creation of additional debt contract that relies on accounting based performance measurement creates a demand for more or higher quality auditing, as independence is very important. Therefore, the presence of long-term debt contract creates a demand for higher quality audit (Eichenseher and Shields, 1985; Palmrose, 1986) rather than directorship. Another study on New Zealand stock exchange companies also support this notion by claiming that the higher the leverage, the greater the demand for a Big Eight (high quality) auditor (Firth and Smith, 1992).

Basically, most companies have some debts in their capital structure. Debt financing is considered as external financing which induce monitoring by lenders (Agrawal and Knoeber, 1996; Ang et al., 2000). As the leverage increases, so does the risk of default, hence the incentive for the lenders to monitor the organisation. This is supported by a study by Ang et al. (2000), which finds that agency costs are lower with greater monitoring by banks. In addition, banks also lead organizations to operate more efficiently by better utilising assets and moderating perquisite consumptions in order to improve the organizations' reported financial performance to the banks (Ang et al., 2000). This is agreed by Jensen (1986) who states that the action of managers of organisation with high debts will be monitored by the debt holders and controlled by the debt contracts. This is to ensure that the managers adhere to and follow the debt contracts as the debt holders depend on it in the event of bankruptcy. Therefore it is argued that in an organisation which has high debt, managers will be more cautious in their actions as they realised that they are being scrutinised and monitored (Bryan et al., 2005), and this also spur from the need to report good performance to the bank. As a result there will be less expropriation of shareholders wealth, less conflict and less agency problem, thus leading to less monitoring needed. Hence, it is hypothesised that:

H₁: The greater the debt of an organisation relative to the market value of the organisation, the lower is the total amount expended on monitoring from auditing and directorship.

It is claimed that an organisation with high debt financing would place heavy demand for detailed financial disclosure to enable the debt holders to monitor the adherence of the debt covenants. The debt holders will depend on accounting values (Anderson et al., 1993) and the true and fairness of the financial statements as certified by the auditors to ensure the validity of the value of the assets in the determination of payoffs to claimholders. An organisation with debt contracts is also said to place high importance and reliance on the accounting numbers, and especially so if the greater the number of different accounting measures in the organisation debt covenants (Chow, 1982). Furthermore debt holders have no legal rights to access the organisation's books and records and the audited financial statements are the best assurance they have of the organisation's status (Taurigana and Clarke, 2000). Hence, it is argued that the opinion of the auditors is very important to the debt holders to check on the management (director) of the organisation's ability to pay its dues and ensure the credibility of the financial statements prepared by the management. Therefore it is hypothesised that:

H₂: The greater the debt of an organisation relative to the market value of the organisation, the lower is the relative expenditure on monitoring from directorship compared to auditing (internal and external).

As independent opinion of a third party on the financial statements to assess the management 's ability to pay is very crucial for the debt holders, they will demand and value the opinion of the external auditors more highly compared to those of the internal

auditors. This is because internal auditors are the staff of the organisation and report to the management of the organisation (Messier and Boh, 2004, p. 10). Even though some of the organizations may have outsourced their internal audit service, but they still report to the audit committee, which is a sub-committee to the board of directors. On the other hand, the external auditors are viewed to be separated and more independent from the management and their audit reports certify the credibility of the accounts prepared by the organizations for public use. These audited accounts are important information to the lenders in accessing the organizations' ability to pay their dues. Therefore it is argued that a highly geared organisation will depend more on external auditors compared to internal auditors. Hence:

H₃: The greater the debt of an organisation relative to the market value of the organisation, the lower is the relative expenditure on monitoring from internal auditing compared to external auditing.

3. Data and Methodology

3.1 Data and sample

Data for the study was collected using primary (questionnaire and interviews) and secondary sources (annual reports). The population of the study includes all 867 companies listed on the Main and Second Board of Bursa Malaysia. However, the companies classified under finance sector were excluded in this study because of their unique features and business activities, as well as differences in compliance and regulatory requirements (Yatim et al., 2006). The response rate was 27% , with 235 usable samples used in the study.

3.2. Models and Variable definition

There are three models to test the three hypotheses. And there are three dependent variables, one dependent variable for each model.

The first model tests hypothesis 1 (H₁):

$$\text{MONITORING} = \alpha_i + b_1\text{DEBT} + Y(\text{Control variables}) + \varepsilon_i \dots\dots\dots \textbf{Model 1}$$

Where the dependent variable is the monitoring costs of the companies listed in Bursa Malaysia. Directorship and auditing (internal and external) are specified as monitoring mechanisms in the Malaysian Code of Corporate Governance (FCCG, 2001). This total Monitoring (MONITORING) is measured by the sum of organization investment in non-executive directors' remunerations, internal auditors' costs, and external auditors' costs.

The second model test hypothesis 2 (H₂):

$$\text{DIRAUD} = \alpha_i + b_1\text{DEBT} + Y(\text{Control variables}) + \varepsilon_i \dots\dots\dots \textbf{Model 2}$$

Where the dependent variable is the ratio of total directors' remuneration to total auditing. This model test the hypothesis relating to the preference between directorship and auditing.

The third model test hypothesis 3 (H₃):

$$\text{INT EXT} = \alpha_i + b_1\text{DEBT} + Y(\text{Control variables}) + \varepsilon_i \dots\dots\dots \text{Model 3}$$

Where the dependent variable is the ratio of the total internal audit costs to total external audit costs. This model test the hypothesis relating to the preference between internal auditing and external auditing.

The independent variable in all models is the debt structure (DEBT) which is the ratio of the long term debt to market value of the firm. The controlled variables include in this study are size, complexity, risk and listing status.

4. Findings and Discussions

4.1. Descriptive statistics

Table 1 presents descriptive statistics of the dependent, independent and control variables. The results of standard tests on skewness and kurtosis in Table 1 indicate that there is no problem with normality assumption[‡]. Thus, these variables can reasonably be considered as normally distributed. Table 2 presents pairwise correlation coefficient of all variables. The result indicates that there is no multicollinearity problem, as the correlations are below the threshold value of 0.8 (Gujarati, 2003, p. 359).

Table 1 : Descriptive summary statistics

Variable	Mean	Minimum	Maximum	Std Dev	Skewness	Kurtosis
MONITORING	12.9841	10.9491	16.8605	1.0005	0.864	0.922
DIRAUD	9.7291	0.1076	38.2952	7.4972	1.190	1.516
INTEXT	0.5959	0.0000	2.2210	0.4098	1.437	2.777
DEBT	0.1468	0.0000	0.93283	0.1584	1.86	4.366
SIZE	19.744	16.720	24.8991	1.4171	0.911	0.887
REVINV	0.3088	0.0019	0.8046	0.1945	0.329	-0.888
COMPLEX	2.4998	0.0000	6.0981	0.9091	0.232	1.430
RISK	0.2000	0	1	0.3980	1.544	0.386
LISTSTAT	0.7400	0	1	0.4370	-1.130	-0.731

Variable definition:

MONITORING = Total monitoring costs(ln); SIZE = Total assets(ln); RECINV = Ratio of inventories and receivables to total assets; COMPLEX = number of subsidiaries(ln); RISK = Current year loss(Dummy); LISTSTAT = Board listing (Dummy)

[‡] The data is said to be normal if the standard skewness is within ± 1.96 and standard kurtosis is between ± 3.0 (Mat Nor and Sulong, 2007; Abdul Rahman and Mohamed Ali, 2006; Haniffa and Hudaib, 2006).

Table 2 : Correlation matrix

Variable	MONITOR	DIRAUD	INTEXT	DEBT	SIZE	RECINV	COMPLEX	RISK	LISTSTAT
MONITOR	1.00								
DIRAUD	-.389***	1.00							
INTEXT	.301**	-.371***	1.00						
DEBT	.241***	-.149**	-.041	1.00					
SIZE	.82***	-.318 ***	0.212***	-.418***	1.00				
RECINV	-.212***	.170***	.013	-.370***	-.397***	1.00			
COMPLEX	.605***	-.224***	-.045	.224***	.523***	-.143**	1.00		
RISK	-.246***	-.123*	-.062	.073	-.233***	.005	-.039	1.00	
LISTSTAT	0.319***	-.018	.050	0.06	0.467***	-.235***	.207 ***	-.277***	1.00

Notes: *** significant at 1% level; ** significant at 5% level ; * significant at 10% level
(See variable definition in Table 1)

4.2 Results

The data was analyzed using multiple regression analysis. Table 3 presents the results for all the three models.

Column two of Table 3 presents the multiple regression analysis used to test the model 1. The adjusted R squared for the model is 0.743 and the F-value of 113.825 is significant ($p < 0.000$). The result indicates that the debt structure is significant and negatively related to the total monitoring costs. This result implies that as the ratio of long term debt to the market value of the organisation increases, the total monitoring costs will decrease; hence, hypothesis H_1 is supported. This result is consistent the findings from earlier studies by Ang et al. (2000) and Jensen (1986). This result support the notion that debt financing is an alternative or complementary monitoring mechanism as it can induce monitoring by lenders (Agrawal and Knoeber, 1996; Ang et al., 2000). Debt is also said to serve as a disciplining device because default allows creditors the option to force the organisation into liquidation (Harris and Raviv, 1990), continual scrutiny by these external monitors provide incentives for managers to avoid shirking and excessive perquisite consumption (Bryan et al., 2005), where managers tend to ensure that organizations are being operated more efficiently by better utilising assets and moderating perquisite consumptions in order to improve the organisation's reported financial performance to the bank (Ang et al., 2000).

This finding is supported by the telephone interviews with several bank officers in charge of approval and monitoring of loans in a few principal banks in Malaysia. Among others, they claim that:

“There is stricter regulation after the financial year crisis 1997/98 imposed by the bank to our clients compared to those before the crisis”

“We will be stricter when approving and evaluating loans for public companies compared to private companies”

“Generally, we will monitor all our clients through our computerised system which will trigger a warning if there is any problem relating to a client. And as the bank margin is greater and the risk is higher for clients with big amount of loan, we will give them more attention, for example, we will review their accounts more regularly”

The above finding and the interview results suggests that high borrowing encourages banks and creditors to play a monitoring role in Malaysian companies. And it appears that the financial crisis in 1997/1998 affect the bank evaluation and monitoring of their clients. A lot of banks throughout the world are closed and / or forced to merge in order to survive. The same scenario happens in Malaysia. As a result, the shareholders and lenders are more alert and watchful to make sure that their interests in the companies are protected. Thus, this negatively significant result in this study may be explained by the fact that, learning from their experience and the downfalls during the crisis, coupled with the regulations introduced after the crisis motivate the lenders to be more alert and play a more proactive monitoring role. And all 5 interviewees also agree that more attention will be given to their clients with higher amount of loan as this will involve higher risk for the bank.

However, Debt structure variable in Model 2 (column three of Table 3) is not significant, thus hypothesis H₂ is not supported. Haniffa and Hudaib (2006) claim that firms and banks/ debt holders have close relationship in Malaysia. The debt holders may stress for lesser monitoring cost as indicated in the significant result in Model 1, as they have to bear a portion of such costs, especially in the event of bankruptcy, as happened during and after the financial crisis 1997/98. But in Malaysian business environment, it is argued that, couple with their close relationship with the management and the trust they put in them, the debt holders may not be very concern of the preference between directorship and auditing as long as the monitoring work is done and their interest is protected. This then result in this insignificant relationship.

Table 3: Results of OLS estimation

Variables	Model 1	Model 2	Model 3
CONSTANT	1.258*** (1.987)	49.976*** (5.753)	-1.835*** (-3.761)
DEBT	-0.689*** (-2.820)	2.633 (0.785)	-0.394** (-2.091)
SIZE	0.570*** (16.403)	-2.090*** (-4.379)	0.139*** (5.182)
COMPLEX	0.260*** (6.025)	-0.468 (-0.790)	-0.104*** (-3.110)
RECINV	0.406** (2.092)	2.281 (.857)	0.198 (1.323)
RISK	-0.173** (-1.937)	-3.448*** (-2.812)	0.028 (0.411)
LISTSTAT	-0.231** (-2.602)	2.375** (1.946)	-0.082 (-1.195)
R-squared	0.75	0.16	0.113
Adj R-squared	0.743	0.138	0.09
F-Statistics	113.825	7.237	4.862
P-value	0.000000	0.000000	0.000000

Notes: *** significant at 1% level; ** significant at 5% level ; * significant at 10% level
(See variable definition in Table 1)

The result in column four of Table 3 indicates that debt structure variable (DEBT) is significant in Model 3. This result implies that as the ratio of the long term debt to the market value increase, the organisation would invest more in external audit compared to internal audit as its monitoring mechanism, thus, hypothesis H_3 is supported. This finding is consistent with earlier studies by Taurangana and Clarke (2000), Chow (1982) and Firth and Smith (1992).

This result supports the argument that an organisation with high debt financing would place heavy demand on the detailed financial disclosure to enable the debt holders monitor the adherence of the debt covenants, and the audited financial statements are the best assurance that the debt-holders have of the organisation's status as they have no legal right to access the organisation's books and records (Taurangana and Clarke, 2000). An organisation with debt contracts is also said to place high importance and reliance on the accounting numbers (Chow, 1982), and this reliance on accounting based performance measurement creates a demand for more or higher quality auditing (Jensen and Meckling, 1976).

5. Conclusion

The major purpose of this study is to investigate how the debt structure of an organisation affects its demand and preference for monitoring costs in Malaysian business environment. The results indicate that as the debts of organizations increase the monitoring costs decrease, this findings suggest that as the debts increase, managers are more alert as they realizes that the banks are monitoring them. However the debt structure is not significant when the cost of directorship and auditing are compared. But when internal auditing and external auditing costs are compared, the result indicates that companies with high debt structure significantly have more external auditing costs. This result is consistent with prior studies and supports the notion that highly geared companies require more external audit as the banks need the independent third party to verify the figures in the financial statements prepared by the management.

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